water), therefore the pressure to be supplied from the gas main
will be

9.817-4.236 = 5kg581
0.22 in of water

The chimney draft required for removing the waste gases from
the heating chamber will be

	Gas on Waste Gas
Draft required at flue junction	26 kg
Draft required for port velocity	13 kg
Draft in inches of water column	40 kg

The total draft at the base of stack or waste-heat boiler inlet will be

40.382+0.228 + 1.520 = 42 kg 130 per m^2
42 mm 413 of water
1.67 in of water

The height of the chimney will be based upon the assumption
that the furnace will be workable by natural draft with the waste-
heat boiler out of service. The temperature of the waste gases
at the base of the stack will be 630° C. (1166° F.) and the volume
of the waste gases 42 m^3 29 (1494 cu ft) per second at this tempera-
ture. The area of the chimney may be fixed by assuming a
desired velocity of 10 m 00 (32.7 ft) per second. A velocity head
of 5 m 10 (16.7 ft) will be required to impress this velocity upon
the gases. The area of the stack may be approximated by the
following formula: _____

$$Q_t =$$

in which Q* = the volume of gases flowing per second; for the case
in hand, this is 42 m^3 29;
H = the head at the base of the stack, assumed as 5 m 10;
2g = gravitational constant = 2X9.81 = 19.62;